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THE
Connecticut Agricultural Experiment Station,
NEW HAVEN, CONN.

BULLETIN No. 109.

AUGUST, 1891.

The Bulletins and Reports of this Station are mailed free to every citizen of Connecticut who applies for them seasonably.

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NOTICE.

Repeated inquiry has been made at this Station regarding the practical operation and success of the method of paying for milk according to the quantity of fat in it as determined by the Babcock, Patrick, or Beimling methods, and also regarding the preservation of so-called "composite samples" which enables the operator to test the quality of the whole week's milk in one operation.

The method of paying for milk according to the quantity of fat in it is being used with success at the creamery of J. B. Sanford, Esq., in Redding, and at a large and constantly increasing number of creameries in other States.

The method of preparing and preserving composite samples which was originated and has been developed and tested by Prof. G. E. Patrick of the Iowa Station, has not, so far as we know, been practiced in this State, but it is in successful use elsewhere.

This Station will gladly coöperate with any creamery which may wish to adopt or try the method.

CORRECTION.

In the last Report of this Station, page 29, F. S. Bidwell, Windsor Locks, is named as selling Shoemaker's Swift Sure Bone Meal at \$32.00 per ton. Mr. Bidwell was not an agent for the sale of that brand, the price of which is \$38.00 and not \$32.00.

MIXED COMMERCIAL FERTILIZERS.

NITROGENOUS SUPERPHOSPHATES.

Here are included all such superphosphates as are not designed by the manufacturer for use on some special crop.

Since dry fish is often treated with a little oil of vitriol, thus making part of the phosphoric acid soluble in water, all the samples of this material have been analyzed as superphosphates and tabulated here.

All the analyses have been made on samples drawn by the agents of this Station during the season of 1891.

These analyses together with those of "Special Manures" given further on accurately represent the quality of the factory-mixed fertilizers in our market at the present time. The analyses of nitrogenous superphosphates are tabulated on pages 10 to 23. Attention is here called to some points which specially concern purchasers and consumers.

THE GUARANTEES.

The law of Connecticut requires every package of fertilizer to bear a statement of the actual composition of the goods. This usually expresses the quantities of nitrogen, phosphoric acid and potash within certain limits, as "nitrogen 2-4 per cent."

If a fertilizer with such a guarantee actually contains 2 per cent. of nitrogen, it is within the manufacturer's guarantee.

It is the lowest figures of the guarantee therefore that purchasers should regard.

Of the fifty-seven brands here reported fourteen are below their minimum guarantee in respect of one ingredient, and six in respect of two ingredients. That is, one-third of all the nitrogenous superphosphates in our market contain less of one or of several ingredients than they are claimed to contain.

It may be urged that an excess of one ingredient over the guarantee should be held to make good the deficiency of another. But with reasonable care and skill in the manufacture and in the sampling and analysis of the goods the actual analysis should not fall below the minimum guaranteed in any respect particularly when such wide limits are allowed in the guarantees themselves.

THE ACTUAL CHEMICAL COMPOSITION.

The different brands differ greatly in composition.

Below are given the highest and lowest percentages of each ingredient and also the average composition of the nitrogenous superphosphates.

The samples of dry ground fish, Peruvian guano and bone treated with oil of vitriol are not included in this table.

COMPOSITION OF NITROGENOUS SUPERPHOSPHATES. SEASON OF 1891.

	Highest.	Lowest.	Average.
Nitrogen as nitrates	1.08	0	.14
“ “ ammonia	2.55	0	.28
“ organic	6.06	.73	2.47
Total Nitrogen	6.06	.73	2.89
Soluble Phosphoric Acid	10.51	1.31	5.71
Reverted “ “	8.04	1.19	3.19
Insoluble “ “	2.85	.15	1.34
Readily available Phosphoric Acid ...	12.97	4.23	8.90
Total “ “ ...	14.78	5.19	10.24
Potash	9.95	.93	3.48
Chlorine	7.88	none	3.35
Cost per ton	\$45.00	\$25.00	\$33.97
Valuation per ton	\$34.18	\$16.74	\$26.81

This table shows that the nitrogen in the nitrogenous superphosphates now in market varies from three-quarters of one per cent. to six per cent., phosphoric acid from five to fourteen and three-quarters per cent., and potash from less than one per cent. to ten.

It is evident that among the various brands there is a great difference in the quantity of actually valuable ingredients per ton and these differences must be studied by any one who would purchase economically.

A comparison of these tables with those of former years will also show that certain brands have about the same composition year after year, while others fluctuate considerably and cannot be depended on to be the same from year to year.

THE QUALITY OF THE FERTILIZING INGREDIENTS.

The efficiency of nitrogen, phosphoric acid and potash in fertilizers depends to a great degree on mechanical condition, state of combination and consequent solubility. The mechanical condition of the phosphates sold in this State is generally good. In no instance can it be called bad.

The *Potash* of these superphosphates is in all cases readily available, being freely soluble in water. Potash which is insoluble in water is not taken account of in any of our analyses.

The *Phosphoric Acid*, if “soluble,” that is, soluble in water, is equally available to plants whether derived from bone, bone black or rock phosphate.

Other things being equal it is generally best to choose a superphosphate in which most of the phosphoric acid is “soluble.”

On some soils soluble phosphoric acid has less good effect than reverted. The agricultural value of different forms of "reverted" phosphoric acid differs somewhat according to crop and soil, some of them being in certain cases quite as valuable as "soluble" phosphoric acid.

It is not advisable to purchase superphosphates in which any considerable portion of the phosphate is "insoluble." The insoluble phosphoric acid from Charleston rock or bone black is under most circumstances quite inert, that from fine-ground bone is more or less readily available, but it is impossible for the purchaser to distinguish one from the other in a mixed fertilizer.

It is quite impossible for the purchaser, and difficult and often impossible for the chemist to sharply distinguish between good and poor forms of *Organic Nitrogen*. That there are in market forms which are almost or quite inert as fertilizers is well known, and in buying goods ready-mixed the purchaser must trust in large measure to the business integrity of the firm with which he is dealing. This Station has devoted a good deal of time and study to the detection of inferior forms of nitrogen in mixed goods. No case of such fraud has yet been positively proved, although in one or two instances there has been reason for suspicion.

COST AND VALUATION.

Cost.

The method used to ascertain the retail cash price of the phosphates is as follows :

The sampling agents inquire and note the price at the time each sample is drawn. The analysis when done is reported to each dealer from whom a sample was taken with an enclosed postal card addressed to the Station, and a request to note on it whether the retail cash price is correctly given and to mail to the Station.

To each manufacturer is also sent a request that he will notify the Station regarding the probable average cash price at freight centers in Connecticut, of such brands as he sells in the State.

From these data the average prices are computed.

Valuation.

The Valuation of a Fertilizer as calculated at this Station represents the retail trade value or cash cost (in raw material of

good quality), of amounts of nitrogen, phosphoric acid and potash equal to these contained in one ton of the fertilizer.

The valuation is no attempt to fix a price at which one ought to sell or be able to buy a given fertilizer. Commercial mixed fertilizers are bought not for their name, or appearance or odor, but solely for the available nitrogen, phosphoric acid and potash contained in them. They can be most conveniently and accurately tested and compared *not* by the crops raised on neighboring plots fertilized with them but by chemical analysis coupled with a valuation which shall approximately represent what a purchaser would have to pay for a like quantity of the ingredients named, unmixed, in raw materials of good quality.

The valuation of mixed fertilizers must therefore generally fall below the retail prices. The difference between the two figures represents the manufacturer's charges for converting raw materials into manufactured articles and selling them. These charges are for grinding and mixing, bagging or barreling, storage and transportation, commission to agents and dealers, long credits, interest on investments, bad debts, and finally, profits.

Percentage Difference given in the last column of the table shows the percentage excess of the cost price over the average retail cost of the nitrogen, phosphoric acid and potash contained in the fertilizer.

This information puts the purchaser into a position where he can figure as to the probable relative value of the different brands and the probable relative economy of buying fertilizers mixed or unmixed.

Which method of buying is preferable can only be determined by each individual farmer who should know best what his soil and crops need and what his facilities for purchase and payment are.

No general rule can be given. In one case ready-mixed, in another, home-mixed fertilizers may be found the more profitable to use.

The average cost of the nitrogenous superphosphates as already given is \$33.97. The average valuation, \$26.81 and the percentage difference 26.7.

Last year the corresponding figures were :

Average cost \$33.80, Average valuation \$28.57, Percentage difference 25.5.

SPECIAL MANURES.

These are in nearly all cases nitrogenous superphosphates and are claimed to be particularly adapted to the uses of certain crops.

The analyses of thirty-seven different brands are given in the following tables. The samples were in all cases drawn by agents of the Station. The analyses are tabulated on pages 24 to 35.

GUARANTEES.

Eleven brands are below the maker's guarantee in respect of one ingredient, two in respect of two ingredients, and one brand is below in all three.

ACTUAL COMPOSITION.

Below are given the highest and lowest percentage of each ingredient found in any special manure as well as their average composition.

COMPOSITION OF SPECIAL MANURES.

	Highest.	Lowest.	Average.
Nitrogen as nitrate	5.08	none.	.62
" " ammonia	3.90	none.	.85
" organic	3.90	none.	2.25
Total nitrogen	6.90	1.15	3.72
Soluble Phosphoric Acid	7.65	none.	5.05
Reverted " "	9.16	1.13	2.77
Insoluble " "	7.56	.11	1.57
Readily available Phosph. Acid ..	10.36	4.38	7.82
Total	16.72	5.36	9.39
Potash	11.66	1.54	6.74
Cost per ton	\$50.00	\$33.00	\$38.70
Valuation per ton	\$46.35	\$21.42	\$31.28

A comparison of the average composition of these special manures with that of the other nitrogenous superphosphates shows the former to contain, on the whole, considerably more nitrogen, nearly twice as much potash and somewhat less phosphoric acid than the latter.

COST, VALUATION AND PERCENTAGE DIFFERENCE.

The average cost per ton of the special manures has been \$38.70, the average valuation, \$31.28 and the percentage difference 23.7, a little lower than in case of the nitrogenous superphosphates.

Last year the corresponding figures were: Average cost \$39.18, average valuation \$32.90, percentage difference 19.0.

HOME-MIXED FERTILIZERS.

Many farmers prefer to buy fertilizer-chemicals and mix them according to their own ideas of the requirements of their land and crops, and with the conviction that in the present state of the fertilizer trade they can buy nitrogen, phosphoric acid and potash more economically in this way than in any other.

The formulas of such home-mixtures as have been received at the Station and also the analyses are given in the tables on pages 36 to 40.

Since, in most cases, the stocks from which the chemicals were bought have been sampled and analyzed by the Station it is easy to calculate what the composition of the mixtures would have been if the goods had been perfectly uniform and the weighing and mixing accurate and thorough, without loss or gain of moisture.

This *calculated* composition is likewise given in the table.

The cost of the materials, *unmixed*, delivered at the purchaser's freight station is also given so far as could be ascertained.

The regular cash retail price of the materials is stated in each case. Special and considerably reduced rates were obtained in a number of cases.

The valuations were calculated as in the preceding tables.

CALCULATED AND ACTUAL COMPOSITION.

The calculated nitrogen in most cases agrees fairly well with the amount actually found. There are greater discrepancies in phosphoric acid and potash ; in most cases the actual phosphoric acid is less than calculated, and the potash more than calculated.

AVERAGE COMPOSITION OF HOME MIXTURES.

	Highest.	Lowest.	Average.
Nitrogen as nitrate	2.95	none.	.82
" " ammonia	1.97	none.	.65
" organic	4.85	1.61	2.78
Total nitrogen	6.51	3.23	4.25
Soluble phosphoric acid	10.25	.16	4.72
Reverted " "	6.33	1.53	3.83
Insoluble " "	5.11	.55	2.53
Total " "	15.11	6.09	11.08
Potash	15.85	2.08	6.57
Cost of materials per ton unmixed	\$39.60	\$26.43	\$34.82
Valuation per ton	\$38.27	\$30.28	\$34.57

In the above table only those mixtures are regarded whose formulas are known.

Comparing the Home Mixtures with the Special Manures it is seen that the former contain on the average (fourteen analyses) half of a per cent. more nitrogen, over one and a half per cent. more phosphoric acid and slightly more of potash than the latter.

COST, VALUATION AND PERCENTAGE DIFFERENCE.

The average cost of the materials of which these mixtures were made, delivered, was \$34.82. To this must be added the cost of screening and mixing which is necessarily variable and is estimated by those who have had experience, at from one to two dollars per ton.

If the average cost of the *mixed* materials is placed at \$37.00 per ton it will probably fully cover all expense in every case.

On this basis the average cost of the Home Mixtures has been \$37.00, the average valuation \$34.82 and the percentage difference 6.2.

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3183	Acidulated Fish Guano.	Leander Wilcox, Mystic, Conn.	H. K. Brainard, Thompsonville.	\$20.00
3136	Dry Ground Fish.	L. Sanderson, New Haven, Conn.	Manufacturer.	30.00
3344	Pure Fine Dissolved Bone.	Mapes' Formula & Peruvian Guano Co., 143 Liberty St., New York.	Mapes' Branch, Hartford.	32.00
3172	Dry Ground Fish Guano.	Leander Wilcox, Mystic, Conn.	H. K. Brainard, Thompsonville.	33.00
			W. W. Cooper, Suffield.	35.00
			Manufacturer.	30.00
3253	Pure Dry Ground Menhaden Guano, A.	Joseph Church & Co., Tiverton, R. I.	J. W. Reynolds, Goodspeeds.	30.00
3231	Cumberland Bone Superphosphate.	Cumberland Bone Co., Portland, Me.	Manufacturer.	34.00
3257	Dry Ground Fish.	Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.	L. D. Post, Andover.	30.00
			D. W. Spencer, Centerbrook.	32.00
			J. B. Holmes, Stratford.	38.00
			W. F. Andross, E. Hartford.	35.00
3232	Bone, Fish and Potash.	E. R. Kelsey, Branford, Conn.	R. A. Parker, Warehouse Point.	34.00
			Wilson & Burr, Middletown.	28.00
			J. R. Barnes, Cheshire.	25.00
			Manufacturer.	20.00
3320	Sanderson's Formula A.	L. Sanderson, New Haven, Conn.	Manufacturer.	35.00
			E. A. Atwater, Cheshire.	36.00
3213	Dry Ground Fish.	Quinnipiac Co., 7 Exchange Place, Boston, Mass.	J. F. Sullivan, New Canaan.	36.00
			P. & G. Williams, New London.	40.00
3331	Chittenden's Fish and Potash.	National Fertilizer Co., Bridgeport, Conn.	G. A. & H. B. Williams, E. Hartford.	32.00
			Prindle & Clark, W. Cheshire.	33.00

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3255	Standard C Brand Fertilizer.	Joseph Church & Co., Tiverton, R. I.	Manufacturer.	\$35.00
3254	Special B Brand Fertilizer.	Joseph Church & Co., Tiverton, R. I.	Manufacturer.	37.00
3336	Swift Sure Superphosphate.	M. L. Shoemaker & Co., Philadelphia, Pa.	Wm. H. Filley, Windsor.	40.00
			J. P. Barstow & Co., Norwich.	37.00
			F. Ellsworth, Hartford.	38.00
3321	Genuine Peruvian Guano.	Mapes' Formula & Peruvian Guano Co., 143 Liberty St., New York.	Mapes' Conn. Valley Branch, Hartford.	41.00
3291	Complete Manure, A Brand.	Mapes' Formula & Peruvian Guano Co., 143 Liberty St., New York.	D. B. Wilson, Waterbury.	36.00
			Birdsey & Foster, Meriden.	36.00
			F. S. Bidwell, Windsor Locks.	36.00
			Quimnebaug Store, Danielsonville.	37.00
			Mapes' Conn. Valley Branch, Hartford.	35.00
			D. Beers, Danbury.	36.00
			Wilson & Burr, Middletown.	36.00
			A. N. Clark, Milford.	37.00
			Southington Lumber & Feed Co., Southington.	35.15
			J. P. Barstow & Co., Norwich.	36.00
			Strong & Backus, Colechester.	34.00
3288	Complete Manure for General Use.	Mapes' Formula & Peruvian Guano Co., 143 Liberty St., New York.	Southington Lumber & Feed Co., Southington.	35.00
			Mapes' Conn. Valley Branch, Hartford.	38.00

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3224	Clittenden's Ammoniated Phosphate.	Bone National Fertilizer Co., Bridgeport, Conn.	W. L. Currier, Bridgeport.	\$35.00
			E. P. Matherson, Promfret.	-----
			E. B. Clark, Milford.	30.00
			G. A. & H. B. Williams, E. Hartford.	32.00
			F. L. Leighton & Co., Wallingford.	35.00
			Prindle & Clark, W. Cheshire.	31.00
			C. D. James, Danielsonville.	-----
			J. S. Worthington, Gildersleeve.	-----
			D. G. Penfield, Danbury.	35.00
			G. W. Eaton, Plainville.	33.00
3248	Bradley's Farmers New Method Fertilizer.	Bradley Fertilizer Co., 127 Kilby St., Boston, Mass.	J. E. Leonard, Jewett City.	32.00
			City Coal & Wood Co., New Britain.	33.00
			W. F. Andross, E. Hartford.	33.00
			D. N. Clark & Sons, Milford.	29.00
			G. W. Carver, Putnam.	29.00
			G. R. Fowler, Central Village.	34.00
			Carter & Strong, Manchester.	34.00
			D. W. Spencer, Centerbrook.	34.00
			J. M. Young, Norwich.	30.00
			R. D. Williams, Collinsville.	32.00
3235	A. A. Ammoniated Superphosphate.	H. J. Baker & Bro., 215 Pearl St., New York.	E. H. Talcott, Torrington.	37.50
			J. H. Ives, Danbury.	37.50
			A. L. Winton, Bridgeport.	37.50
			H. L. Foote, Brookfield Junction.	37.50
			G. W. Walker, Saybrook.	37.50
			E. F. Hawley, Newtown.	37.50
			W. F. Andross, E. Hartford.	37.00

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3262	Lister's Standard Phosphate.	Lister's Agricultural Chemical Works, Newark, N. J.	W. H. Parmelee, Essex.	\$35.00
3174	High Grade Fish and Potash.	Leander Wilcox, Mystic, Conn.	H. K. Brainard, Thompsonville. F. E. Fowler, Montville. Manufacturer.	32.00 30.00 31.00
3334	Pilgrim Fertilizer.	J. S. Reese & Co., 10 Broad St., Baltimore, Md.	H. F. Standish, Andover. A. H. Anderson, Putnam. Manufacturer.	31.00 27.00 32.00
3175	Ammoniated Bone Phosphate.	Leander Wilcox, Mystic, Conn.	J. W. Reynolds, Goodspeeds. City Coal & Wood Co., New Britain.	33.00 36.00
3312	Animal Fertilizer.	L. B. Darling Fertilizer Co., Pawtucket, R. I.	W. W. Cooper, Suffield. Montgomery & Co., Groton.	38.00 30.00
3333	New England Favorite.	J. S. Reese & Co., 10 Broad St., Baltimore, Md.	H. F. Standish, Andover. A. H. Anderson, Putnam. D. N. Medbury, Pomfret.	32.00 35.00 35.00
3306	Quinnipiac Phosphate.	Quinnipiac Co., 7 Exchange Place, Boston, Mass.	G. B. Whitehead, Green's Farms. J. F. Stillman, New Canaan. Chaudler & Morse, Putnam. G. M. Williams, New London. C. A. Young, Danielsonville. J. P. Little, Columbia. Olds & Whipple, Hartford. J. S. Worthington, Gildersleeve. A. J. Martin, Wallingford. D. C. Wood, Stratford. John Greenwood, Norwalk.	36.00 38.00 35.00 35.00 37.00 36.00 38.00 35.00 35.00 37.00 38.00

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—*Continued.*

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3241	Bradley's Superphosphate.	Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.	<p>Dix & Wells, Wethersfield. T. F. Powers, Waterford. Strong & Tanner, Winsted. D. Beers, Danbury. Peck Bros., Northfield. S. A. Billings, Meriden. City Coal & Wood Co., New Britain. Quinnebaug Store, Danielsonville. J. E. Leonard, Jewett City. D. N. Clark, Shelton. Wheeler & Howe, Bridgeport. F. S. Bidwell, Windsor Locks. Burtiss & Mead, New Canaan. Warner, Taylor & Curtiss, Sandy Hook. D. W. Spencer, Centerbrook. J. E. Comstock, New London. A. L. Sternberg, Hartford. Carter & Strong, Manchester. Waterbury & June, Greenwich. H. C. Aborn & Co., Ellington. G. R. Fowler, Central Village. John Wells, Hebron. R. A. Parker, Warehouse Point. W. W. Cooper, Suffield.</p>	<p>\$35.00 34.00 35.00 36.00 35.00 38.00 35.00 36.00 36.00 35.00 37.00 34.00 38.00 36.00 38.00 36.00 35.00 --- 38.00 35.00 34.00 39.00 35.00 28.00</p>
3227	Fish and Potash, D Brand.	Joseph Church & Co., Tiverton, R. I.		

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—Continued.

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Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3325	Americus Brand Ammoniated Bone Superphosphate.	Williams & Clark Fertilizer Co., 83 Fulton St., New York.	D. B. Wilson, Waterbury. Strong & Backus, Colchester. Geo. Beaumont, Wallingford. C. E. Stagg, Stratford. Daniel Morgan, Mystic. Joseph Roode, Griswold. H. K. Brainard, Thompsonville. John Wells, Hebron. J. H. Ray & Son, Greenwich. J. P. Little, Columbia. John Bransfield, Portland. Hale, Day & Co., South Manchester. H. L. Vibberts, Manchester. T. C. Greene, Torrington. J. P. Kingsley & Sons, Plainfield. G. R. Whitehead, Green's Farms. E. B. Clark, Milford. J. H. Jennings, Green's Farms. E. H. Wilson, Ellington. C. D. James, Danielsonville. G. H. & H. B. Williams, E. Hartford. D. G. Penfield, Danbury. J. S. Worthington, Gildersleeve. F. L. Leighton & Co., Wallingford. Prindle & Clark, W. Cheshire. S. D. Woodruff, Orange. David Fitzgerald, Stratford W. W. Cooper, Suffield.	\$35.00 33.00 35.00 34.00 35.00 35.00 35.00 --- 32.00 36.00 38.00 36.00 40.00 37.00 33.00 40.00 39.00 --- 40.00 41.00 45.00 40.00 42.50 --- 38.00 42.00 38.00
3309	Market Garden Phosphate.	Quinnipiac Co., 7 Exchange Place, Boston, Mass.		
3323	Chittenden's Complete Fertilizer.	National Fertilizer Co., Bridgeport, Conn.		

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—*Continued.*

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3235	May Flower Fertilizer.	J. S. Reese & Co., 10 Broad St., Baltimore, Md.	Waldo Tillinghast, Plainfield. H. F. Standish, Andover. H. H. Davenport, Pomfret.	\$30.00 29.00 ---
3238	High Grade Phosphate.	E. Frank Coe, 16 Burling Slip, New York.	A. H. Anderson, Putnam. C. H. Lounsbury, Seymour. J. Anidoun, Wethersfield. Backus Bros., South Windham. Arnold Rudd, New London. W. C. Reynolds, Goodspeeds. D. N. Clark, Shelton. E. H. & F. W. Tillinghast, Central Village. H. L. Vibberts, Manchester. D. G. Penfield, Danbury. J. P. Barstow & Co., Norwich. W. T. Andrew, Orange. I. W. Denison, Mystic. F. P. Burr & Co., Middletown. H. S. Hall, 2d, Wallingford. Rogers Bros., New London. E. J. Dickerman, Mt. Carmel. F. S. Bidwell, Windsor Locks.	34.00 36.00 35.00 33.00 34.00 33.00 38.00 32.00 35.00 35.00 32.00 --- 32.00 32.00 38.00 32.50 32.50 33.00
3233	Pelican Bone Fertilizer.	H. J. Baker & Bro., 215 Pearl St., New York.		
3247	Sea Fowl Guano.	Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.		
3304	Soluble Pacific Guano.	W. D. Stewart & Co., 7 Exchange Place, Boston, Mass.	John Bransfield, Portland. R. H. Tucker, Saybrook. L. J. Grant, South Windsor. Edward Halladay, Suffield. W. F. Andross, E. Hartford. P. J. Bolan, Waterbury.	38.00 35.00 36.00 36.00 36.00 35.00

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3318	Ammoniated Bone Fertilizer.	Bowker Fertilizer Co., 43 Chatham St., Boston, Mass.	J. E. Leonard, Jewett City. E. M. Brewster, Norwich. N. E. Smith, Woodmont. Waldo Tillinghast, Plainfield. Strong & Backus, Colchester.	\$32.00 32.00 30.00 33.00 31.00 44.00
3299 3246	Vegetable Phosphate. Fish and Potash, Triangle A Brand.	Crocker Fertilizer Co., Buffalo, N. Y. Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.	J. E. Holmes, Ridgefield. G. W. Grant, South Windsor. R. A. Parker, Warehouse Point. D. N. Clark, Shelton. Carter & Strong, Manchester.	32.00 30.00 40.00 33.00 38.00
3317	Hill and Drill Phosphate.	Bowker Fertilizer Co., Boston, Mass.	J. M. Williams, Manchester. M. A. Covell, North Grosvendale. E. F. Miller, Ellington. City Coal & Wood Co., New Britain. J. H. Fish, Newington. W. F. Andross, E. Hartford. B. Curtiss & Son, Stepney. J. H. Larned, Pomfret. M. McNamara, New Milford. E. M. Brewster, Norwich. F. Hallock & Co., Birmingham.	34.00 36.00 37.00 37.00 36.00 36.00 38.00 34.00

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3297	Ammoniated Bone Phosphate.	Crocker Fertilizer Co., Buffalo, N. Y.	Prindle & Clark, W. Cheshire. H. C. Aborn, Ellington. G. W. Clark, Milford. F. N. Barton, Watertown. J. P. Little, Columbia. E. W. Peck, Stratford. John Bransfield, Portland H. L. Vibberts, Manchester. C. A. Young, Danielsonville. J. E. Leonard, Jewett City. H. C. Aborn, Ellington.	----- \$34.00 ----- 36.00 37.00 38.00 ----- 37.00 36.00 35.00 30.00
3245	Fish and Potash, Anchor Brand.	Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.		
3311	Fish and Potash, Plain Brand.	Quinnipiac Co., 7 Exchange Place, Boston, Mass.	A. J. Martin, Wallingford. M. O. Babcock, Branford.	27.00 32.00
3264	High Grade Farmer's Friend Fertilizer.	Read Fertilizer Co., Box 3121, New York.	Prior & Tryon, Middletown. Howard Ives, Cheshire.	40.00 42.00
3229	Alkaline Bone.	E. Frank Coe, 16 Burling Slip, New York.	Backus Bros., South Windham.	30.00
3308	Pine Island Phosphate.	Quinnipiac Co., 7 Exchange Place, Boston, Mass.	C. H. Lounsbury, Seymour. Olin Wheeler, South Windsor. Olds & Whipple, Hartford.	32.00 ----- 35.00

NITROGENOUS SUPERPHOSPHATES AND GUANOS SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3303	New Rival Phosphate.	Crocker Fertilizer Co., Buffalo, New York.	W. L. L. Spencer, Lebanon.	\$32.00
			J. A. Weed, New Canaan.	40.00
			M. A. Covell, North Grosvenordale.	32.00
3330	Gold Brand Excelsior Guano.	E. Frank Coe, 16 Burling Slip, New York.	F. N. Barton, Watertown.	32.00
			D. G. Penfield, Danbury.	40.00
			J. Amidon, Wethersfield.	39.00
			Arnold Rudd, New London.	40.00
3256	Fish and Potash.	Read Fertilizer Co., Box 3121, New York.	Howard Ives, Cheshire.	30.00
			Prior & Tryon, Middletown.	28.00
3263	Standard Phosphate.	Read Fertilizer Co., Box 3121, New York.	Prior & Tryon, Middletown.	30.00
			Howard Ives, Cheshire.	32.00
3330	Special Favorite Fertilizer.	Davidge Fertilizer Co., 121 Front St., New York.	J. M. Burke, South Manchester.	34.00
			Waldo Tillinghast, Plainfield.	37.00
3310	Fish and Potash, Crossed Fishes Brand.	Quinnipiac Co., Boston, Mass.	M. A. Covell, North Grosvenordale.	30.00
			M. O. Babcock, Branford.	36.00
			Olin Wheeler, South Windsor.	----
			J. F. Silliman, New Canaan.	38.00
			Olds & Whipple, Hartford.	36.00
3328	Royal Bone Phosphate.	Williams & Clark Fertilizer Co., 83 Fulton St., New York.	John Bransfield, Portland.	30.00
3358	Acme Fertilizer, No. 2.	Acme Fertilizer Co., Maspeth, L. I.	Dale, Day & Co., South Manchester.	30.00
3237	Economical Bone Fertilizer.	Wilkinson & Co., 81 Fulton St., New York.	D. R. Hubbard, Guilford.	45.00
3301	Practical Ammoniated Bone Phosphate.	Crocker Fertilizer Co., Buffalo, N. Y.	W. H. Harris, Woodstock.	32.00
			W. L. L. Spencer, Lebanon.	31.00

ANALYSES OF NITROGENOUS SUPERPHOSPHATES SAMPLED BY THE STATION.

Station No.	Name or Brand.	Nitrogen.						Phosphoric Acid.						Potash.		Chlorine.	Cost per Ton.	Valuation per Ton.	Percentage Difference between Cost and Valuation.
		Nitrogen as Nitrates.	Nitrogen as Ammonia.	Nitrogen Organic.	Total Nitrogen Found.	Nitrogen Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Found.	Available.		Found.	Guaranteed.					
											Found.	Guaranteed.							
B183	L. Wilcox's Acidulated Fish Guano	---	.80	4.95	5.75	---	1.42	2.58	.63	4.63	---	4.00	---	---	---	\$20.00	\$24.67	*18.9	
B136	L. Sanderson's Dry Ground Fish	---	---	8.59	8.59	6.6	.75	3.37	2.98	7.10	6.0	4.12	---	---	---	30.00	34.08	*11.9	
B344	Mapes' Pure Fine Dissolved Bone	---	---	2.82	2.82	2.1	4.88	12.19	2.36	19.43	---	17.07	12.0	---	---	32.00	35.79	*10.6	
B172	L. Wilcox's Dry Ground Fish Guano	---	---	8.90	8.90	8.0	.67	3.43	3.09	7.19	6.0	4.10	4.0	---	---	32.00	35.04	*8.6	
B253	Church's Dry Ground Menhaden Guano	---	---	8.68	8.68	8.2	.59	3.84	3.10	7.53	8.0	4.43	---	---	---	34.00	34.85	*2.5	
B334	Cumberland Bone Superphosphate	.30	---	2.25	2.55	2.5	5.79	7.18	1.81	14.78	---	12.97	12.0	2.25	3.0	30.00	30.74	*2.4	
B257	Bradley's Dry Ground Fish	---	---	8.57	8.57	7.4	.61	3.64	3.36	7.61	7.0	4.25	---	---	---	34.50	34.36	.4	
B232	Kelsey's Bone, Fish and Potash	---	.74	3.41	4.15	3.3	3.07	2.10	.38	5.55	4.0	5.17	---	3.00	3.0	25.00	24.76	1.0	
B320	Sanderson's Formula A	1.08	.69	2.43	4.20	3.3	6.69	3.48	.15	10.32	10.0	10.17	6.0	5.54	6.0	35.00	34.18	2.4	
B213	Quinnipiac Co.'s Dry Ground Fish	---	.26	8.33	8.59	7.4	.48	4.15	2.60	7.23	7.0	4.63	4.0	---	---	36.00	34.82	3.3	
B331	Chittenden's Fish and Potash	---	.46	4.38	4.84	3.3	3.60	2.79	1.31	7.70	6.0	6.39	---	6.13	5.0	32.50	31.27	3.9	
B355	Church's Standard C Brand Fertilizer	---	.32	3.70	4.02	3.3	6.80	2.64	.92	10.36	10.0	9.44	---	4.11	4.0	35.00	31.94	9.6	
B254	Church's Special B Brand	---	---	6.06	6.06	4.9	3.46	2.91	1.42	7.79	12.0	6.37	---	4.93	6.0	37.00	33.71	9.7	

* Valuation exceeds cost.

ANALYSES OF NITROGENOUS SUPERPHOSPHATES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Nitrogen.					Phosphoric Acid.					Potash.		Chlorine.	Cost per Ton.	Valuation per Ton.	Percentage Difference Between Cost and Valuation.
		Nitrogen as Nitrates.	Nitrogen as Ammonia.	Nitrogen, Organic.	Total Nitrogen.	Nitrogen Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Found.	Total Guaranteed.	Found.	Available.				
3336	Shoemaker's Swift Sure Superphosphate	.80	---	2.25	3.05	2.5	7.38	4.36	2.40	14.14	14.0	4.76	9.0	none	\$38.00	\$33.85	12.2
3321	Mapes' Genuine Peruvian Guano	---	1.83	.97	2.80	3.3	3.38	8.92	9.90	22.20	23.0	3.09	3.0	2.03	41.00	35.39	15.9
3291	Mapes' Complete Manure, A Brand	.64	.60	1.79	3.03	2.5	8.48	2.86	1.63	12.37	12.0	3.21	2.5	3.04	36.00	31.03	16.0
3288	Mapes' Complete Manure for General Use	.62	1.00	2.06	3.68	3.3	6.72	3.54	1.38	11.64	---	4.42	4.0	2.47	38.00	32.70	16.2
3324	Clittenden's Ammoniated Bone Phosphate	---	---	2.52	2.52	1.7	6.88	3.75	1.95	12.58	9.0	2.58	2.0	1.25	33.00	27.73	19.0
3248	Bradley's Farmers' New Method Fertilizer	---	---	2.38	2.38	1.7	7.20	2.97	1.95	12.12	10.0	3.03	3.0	2.75	32.00	26.87	19.1
3235	Baker's A. A. Ammoniated Superphosphate	trace	1.85	.96	2.81	2.5	10.51	1.27	.38	12.16	11.0	2.83	2.0	3.86	37.50	31.25	20.0
3262	Lister's Standard Phosphate	---	.46	2.07	2.53	2.1	7.89	4.14	2.45	14.48	12.0	1.09	1.5	.23	35.00	29.07	20.4
3174	Wilcox's High Grade Fish and Potash	---	.45	3.45	3.90	3.3	3.52	2.17	.73	6.42	6.0	4.63	4.0	7.74	31.00	25.70	20.7
3331	Reese's Pilgrim Fertilizer	---	---	1.53	1.53	1.0	2.88	8.04	.40	11.32	7.5	2.51	---	2.23	29.00	23.83	21.7
3175	Wilcox's Ammoniated Bone Phosphate	---	.39	3.47	3.86	3.3	4.19	2.16	.74	7.09	7.0	5.32	5.0	6.21	33.00	27.12	21.7
3312	Darling's Animal Fertilizer	.38	---	3.31	3.69	3.3	4.54	3.57	1.54	9.65	10.0	5.47	4.0	5.30	36.00	29.52	21.9
3333	Reese's New England Fertilizer	---	---	2.72	2.72	2.4	4.03	6.23	.37	10.63	11.0	1.84	2.0	2.33	32.00	26.04	22.9
3306	Quinnipiac Phosphate	.08	---	2.97	3.05	2.5	6.81	3.73	1.66	12.20	10.0	1.99	2.0	1.88	35.00	28.39	23.3
3241	Bradley's Superphosphate	.18	---	2.59	2.77	2.5	7.82	3.17	1.36	12.35	11.0	2.20	2.0	2.65	35.00	28.34	23.5

ANALYSES OF NITROGENOUS SUPERPHOSPHATES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Nitrogen.					Phosphoric Acid.					Potash.		Chlorine.	Cost per Ton.	Valuation per Ton.	Percentage Difference between Cost and Valuation.
		Nitrogen as Nitrates.	Nitrogen as Ammonia.	Nitrogen, Organic.	Total Nitrogen Found.	Nitrogen Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Found.	Total Guaranteed.	Found.	Guaranteed.				
3227	Church's Fish and Potash-	---	---	4.18	4.18	3.3	1.31	2.92	.96	5.19	5.0	4.23	---	5.44	\$28.00	\$22.60	23.9
3325	Americus Ammoniated Bone Phosphate	.08	---	2.75	2.83	2.5	7.28	3.73	.72	11.73	10.0	11.01	9.0	1.58	35.00	28.14	24.4
3309	Quinnipiac Market Garden Phosphate	.26	.64	2.48	3.38	3.3	6.03	1.95	.50	8.48	9.0	7.98	8.0	1.27	40.00	31.86	25.5
3323	Chittenden's Complete Fertilizer	.57	---	2.77	3.34	3.3	4.56	5.80	2.56	12.92	8.0	10.36	6.0	6.22	41.50	32.86	26.3
3335	Reese's Mayflower Fertilizer	---	---	2.02	2.02	1.8	3.25	7.62	.45	11.32	10.0	10.87	8.5	1.57	31.00	24.48	26.6
3228	E. F. Coe's High Grade Phosphate	---	.60	1.72	2.32	2.0	7.87	2.22	2.05	12.14	11.0	10.09	9.0	.40	34.00	26.84	26.7
3233	Baker's Pelican Bone Fertilizer	---	1.27	.91	2.18	1.8	8.46	1.19	.26	9.91	9.0	9.65	8.0	2.85	32.50	25.53	27.3
3247	Bradley's Sea Fowl Guano	---	---	2.42	2.42	2.5	6.90	2.92	1.93	11.75	11.0	9.82	9.0	2.22	33.00	25.87	27.5
3304	Stewart's Soluble Pacific Guano	.11	.23	2.44	2.75	2.3	7.13	2.69	1.52	11.34	10.5	9.82	8.5	2.76	35.00	27.30	28.2
3318	Bowker's Ammoniated Bone Fertilizer	.58	---	1.63	2.21	2.0	7.30	2.38	1.62	11.30	10.0	9.68	8.0	2.05	32.00	24.48	30.7
3299	Crocker's Vegetable Phosphate	---	.12	4.85	4.97	5.0	4.56	2.00	1.13	7.69	7.0	6.56	6.0	8.24	44.00	33.65	30.7
3246	Bradley's Fish and Potash, Triangle A Brand	---	---	2.97	2.97	2.0	4.50	2.02	1.66	8.18	6.0	6.52	4.0	5.10	31.00	23.49	32.0
3317	Bowker's Hill and Drill Phosphate	.87	---	1.97	2.84	2.5	8.00	2.48	1.76	12.24	12.0	10.48	8.0	2.29	37.00	27.98	32.2
3297	Crocker's Ammoniated Bone Phosphate	---	---	2.88	2.88	2.9	5.17	5.07	2.66	12.90	11.0	10.24	10.0	.93	35.50	26.71	32.9

ANALYSES OF NITROGENOUS SUPERPHOSPHATES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Nitrogen.						Phosphoric Acid.						Potash.		Chlorine.	Cost per Ton.	Valuation per Ton.	Percentage Difference between Cost and Valuation.
		Nitrogen as Nitrates.	Nitrogen as Ammonia.	Nitrogen, Organic.	Total Nitrogen.	Nitrogen, Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Found.	Total Guaranteed.	Found.	Guaranteed.	Found.	Guaranteed.				
3245	Bradley's Fish and Potash, Anchor Brand	---	---	3.53	3.53	2.2	2.99	2.97	2.18	8.14	5.0	5.96	3.0	3.29	3.0	5.32	\$32.00	\$24.01	33.5
3311	Quinnipiac Fish and Potash, Plain Brand	---	---	2.87	2.87	2.0	3.23	2.39	1.26	6.88	6.0	5.62	4.0	3.81	4.0	6.40	29.00	21.60	34.2
3264	Read's High Grade Farmer's Friend	---	---	3.22	3.22	3.3	4.24	1.90	1.18	7.32	---	6.14	5.0	9.95	10.0	7.46	40.00	29.05	37.6
3229	E. Frank Coe's Alkaline Bone	---	---	1.07	1.07	1.0	7.56	2.99	1.73	12.28	9.0	10.55	9.0	1.74	3.0	.25	31.00	22.44	38.1
3308	Quinnipiac Pine Island Phosphate	---	.23	2.36	2.59	2.1	6.02	2.97	1.15	10.14	10.0	8.99	9.0	1.37	1.0	1.39	34.00	23.95	41.9
3303	Crocker's New Rival Phosphate	---	---	1.51	1.51	1.2	6.06	3.89	1.82	11.77	11.0	9.95	10.0	1.41	1.6	2.40	32.00	22.22	44.0
3230	E. F. Coe's Excelsior Guano, Gold Brand	---	1.27	1.04	2.31	2.5	6.45	2.68	1.94	11.07	9.0	9.13	8.0	4.75	6.0	1.79	40.00	27.79	43.9
3256	Read's Fish and Potash	---	---	2.59	2.59	2.5	3.39	1.66	.77	5.82	6.0	5.05	4.0	4.30	4.0	5.86	29.00	20.12	44.1
3263	Read's Standard Phosphate	trace	---	1.13	1.13	0.8	7.20	1.40	.51	9.11	10.0	8.60	8.0	4.23	4.0	6.28	31.00	21.14	46.6
3330	Davidge Special Favorite	---	---	1.64	1.64	1.2	8.35	2.59	.19	11.13	11.0	10.94	10.0	1.60	1.5	1.52	35.00	23.86	46.7
3310	Quinnipiac Fish and Potash, Crossed Fishes Brand	---	---	3.43	3.43	3.3	2.88	2.61	1.79	7.28	5.0	5.49	3.0	3.64	3.0	5.80	34.00	23.16	46.8
3328	Williams & Clark's Royal Bone Phosphate	---	---	1.09	1.09	1.0	6.56	2.60	1.15	10.31	8.0	9.16	7.0	1.71	2.0	.85	30.00	19.90	50.8
3358	Acme Fertilizer, No. 2	---	2.55	1.47	4.02	4.9	3.92	2.20	2.86	8.97	8.0	6.12	---	4.88	5.0	4.45	45.00	29.09	54.7
3237	Wilkinson's Economical Bone Fertilizer	---	---	1.07	1.07	2.1	4.70	2.15	.67	7.52	6.0	6.85	---	2.67	3.0	5.60	27.00	16.74	61.5
3301	Crocker's Practical Ammoniated Bone Phosphate	---	---	.73	.73	0.8	5.69	3.43	1.95	11.07	9.0	9.12	8.0	1.41	1.0	1.39	31.00	18.56	67.0

SPECIAL MANURES SAMPLED BY THE STATION.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3260	Fairchild's Formula for Corn and General Crops.	Rogers & Hubbard Co., Middletown, Conn.	Strong & Backus, Colchester.	\$44.00
3222	Seeding Down Manure.	Mapes' Formula & Peruvian Guano Co., 143 Liberty St., New York.	Mapes' Conn. Valley Branch, Hartford.	37.50
3214	Stockbridge Manure for Tobacco.	Bowker Fertilizer Co., 43 Chatham St., Boston, Mass.	H. K. Brainard, Thompsonville.	50.00
3287	Grass and Grain Spring Top Dressing.	Mapes' Formula & Peruvian Guano Co., New York.	F. S. Bidwell, Windsor Locks. Strong & Backus, Colchester. G. K. Nason, Willimantic.	40.00 39.00 39.00
3289	Manure for Fruit and Vines.	Mapes' Formula & Peruvian Guano Co., New York.	Mapes' Conn. Valley Branch, Hartford. Soule & Staub, New Milford.	39.00 41.00
3259	Soluble Potato Manure.	Rogers & Hubbard Co., Middletown, Conn.	Mapes' Conn. Valley Branch, Hartford. E. N. Pierce & Co., Plainville. A. E. Kilburn, East Hartford. G. L. Fosket, Winsted.	38.00 40.00 37.00 37.00
3292	Complete Manure for Light Soils, or Vegetable Manures.	Mapes' Formula & Peruvian Guano Co., 143 Liberty St., New York.	City Coal & Wood Co., New Britain. Strong & Backus, Colchester. Daniel Moriarty, South Meriden.	36.00 37.00 42.00
3173	Potato Manure.	Leander Wilcox, Mystic, Conn.	Mapes' Conn. Valley Branch, Hartford. Wilson & Burr, Middletown. G. K. Nason, Willimantic. Birdsey & Foster, Meriden. J. P. Barstow & Co., Norwich. Manufacturer. J. M. Young, Norwich. W. C. Reynolds, Goodspeeds. C. M. Smith, East Hartford. J. A. Lewis, Willimantic.	43.00 42.00 43.00 34.00 35.00 32.00 36.00 30.00

SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3171	C. C. Special Potato Manure.	Chemical Co. of Canton, Baltimore, Md.	G. L. Foskett, Winsted.	\$35.00
3240	High Grade Tobacco Manure.	Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.	A. C. Sternberg, Hartford.	46.00
3261	Lister's Potato Fertilizer.	Lister's Agricultural Chemical Works, Newark, N. J.	E. P. Carroll, East Hartford.	37.00
3332	Concentrated Potato and Corn Manure.	J. S. Reese & Co., 10 Broad St., Baltimore, Md.	H. F. Standish, Andover.	34.00
3239	Special Tobacco Manure.	H. J. Baker & Bro., 215 Pearl St., New York.	Montgomery & Co., Groton.	32.00
3285	Corn Manure.	Mapes' Formula & Peruvian Guano Co., New York.	E. F. Hawley, Newtown.	42.00
			L. J. Grant, South Windsor.	40.00
			F. S. Bidwell, Windsor Locks.	40.00
			W. W. Cooper, Suffield.	41.00
			D. B. Wilson, Watertown.	41.00
			G. K. Nason, Willimantic.	39.00
			W. A. Benton, Guilford.	40.00
			Mapes' Branch, Hartford.	39.00
			W. R. Foote, Branford.	40.00
			Southington Lumber & Feed Co., Southington.	40.00
3336	Corn Manure.	Mapes' Formula & Peruvian Guano Co., New York.	E. N. Pierce & Co., Plainville.	40.00
3290	Tobacco Manure, Conn. Brand.	Mapes' Formula & Peruvian Guano Co., New York.	D. Beers, Danbury.	39.00
			Mapes' Branch, Hartford.	44.00

SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3243	Complete Manure for Potatoes and Vegetables.	Bradley Fertilizer Co., Boston, Mass.	J. F. Ellwood, Southport.	\$38.00
			R. A. Parker, Warehouse Point.	36.00
			Strong & Tanner, Winsied.	40.00
			J. A. Lewis, Willimantic.	40.00
			W. H. Cheney's Sons, South Manchester.	42.00
			Dix & Welles, Wethersfield.	40.00
			City Coal & Wood Co., New Britain.	41.00
			Carter & Strong, Manchester.	42.00
			E. F. Hawley, Newtown.	42.50
			H. L. Foote, Brookfield Junction.	42.00
3238	Potato Manure.	H. J. Baker & Bro., 215 Pearl St., New York.	J. H. Ives, Danbury.	42.00
			A. L. Winton, Bridgeport.	42.00
			E. H. Talcott, Torrington.	42.00
			Rodgers Bros., New London.	40.50
			W. F. Andross, East Hartford.	40.00
			E. J. Dickerman, Mt. Carmel.	42.50
			Mapes' Branch, Hartford.	48.00
3286	Tobacco Manure, Wrapper Brand.	Mapes' Formula & Peruvian Guano Co., New York.	Southington Lumber & Feed Co., Southington.	47.50
			F. S. Bidwell, Windsor Locks.	49.00
			Soule & Staub, New Milford.	50.00

SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3293	Potato Manure.	Mapes' Formula & Peruvian Guano Co., New York.	W. R. Foote, Branford. F. S. Bidwell, Windsor Locks. Quinnebaug Store, Danielsonville. Wheeler & Howe, Bridgeport. C. W. Beardsley, Milford. Southington Lumber & Feed Co., Southington. E. N. Pierce & Co., Plainville. Wilson & Burr, Middletown. A. N. Clark, Milford. Soule & Staub, New Milford. Mapes' Branch, Hartford. Strong & Backus, Colchester. J. P. Barstow & Co., Norwich. Raymond Bros., South Norwalk. Abbott & Co., Birmingham. D. B. Wilson, Waterbury. City Coal & Wood Co., New Britain.	\$42.00 42.00 43.00 45.00 42.00 40.50 42.00 42.00 43.00 43.00 41.00 41.00 42.00 43.00 40.00 43.00 38.00
3313	Potato and Root Crop Manure.	L. B. Darling Fertilizer Co., Pawtucket, R. I.		
3327	High Grade Special for Potatoes, Tobacco, Onions and Cabbage.	Williams & Clark Co., 83 Fulton St., New York.	John Bransfield, Portland. Hale, Day & Co., South Manchester. L. J. Grant, South Windsor.	40.00 40.00 40.00

SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3279	Great Eastern Vegetable, Vine and Tobacco Fertilizer.	Great Eastern Fertilizer Co., Rutland, Vt.	W. A. Bonfoey, Higganum. S. D. Woodruff, Orange. F. W. Goodrich, Portland. Wm Burr & Son, Fairfield. Way & Sanderson, Pomfret. G. H. Law, Killingly. Waldo Tillinghast, Plainfield. Lewis Browning, New London. E. J. Dickerman, Mt. Carmel. J. A. Lewis, Willimantic. J. A. Paine, Danielsonville. A. H. Anderson, Putnam. H. E. Mead, Ridgefield. E. F. Miller, Ellington. W. A. Beers, Brookfield Junction. J. H. Larned, Pomfret. City Coal & Wood Co., New Britain. J. M. Williams, Manchester. F. H. & F. W. Tillinghast, Central Village. H. L. Vibberts, Manchester. Waldo Tillinghast, Plainfield. E. W. Peck, Stratford. G. W. Clark, Milford.	\$35.00 35.00 ---- 34.00 36.00 32.00 40.00 42.50 43.00 40.00 40.00 42.00 45.00 38.00 ---- 42.00 41.00 40.00 40.00 40.00 37.00 40.00 ---- 39.00 41.00 37.00
3315	Stockbridge Manure for Corn.	Bowker Fertilizer Co., Boston, Mass.		
3300	Special Potato Manure.	Crocker Fertilizer Co., Buffalo, N. Y.		

SPECIAL MANURES SAMPLED BY THE STATION—*Continued.*

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3278	Great Eastern Grain and Grass Fertilizer.	Great Eastern Fertilizer Co., Rutland, Vt.	Wm. Burr & Son, Fairfield.	\$23.00
			W. A. Snow, Columbia.	35.00
			G. H. Law, Killingly.	32.00
			Way & Sanderson, Pomfret.	36.00
			Cartier & Strong, Manchester.	42.00
3244	Complete Manure for Corn and Grain.	Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.	J. E. Holmes, Stratford.	40.00
			D. N. Clark & Sons, Milford.	38.00
			F. S. Bidwell, Windsor Locks.	42.00
3316	Stockbridge Manure for Potatoes and Vegetables.	Bowker Fertilizer Co., Boston, Mass.	Southington Lumber & Feed Co., Southington.	40 50
			A. S. Russell & Co., Meriden.	45.00
			E. B. Clark, Milford.	39.00
			E. J. Dickerman, Mt. Carmel.	43.00
			City Coal & Wood Co., New Britain.	41.00
			N. E. Smith, Woodmont.	40.00

SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3298	Potato, Tobacco and Hop phosphate.	Crocker Fertilizer Co., Buffalo, N. Y.	H. T. Hart, Burnside. J. E. Leonard, Jewett City. W. L. L. Spencer, Lebanon. M. H. Aborn & Co., Rockville. E. W. Peck, Stratford. F. N. Barton, Watertown. G. W. Clark, Milford. W. C. Russell, Orange. J. A. Weed, New Canaan. J. P. Little, Columbia. P. J. Bolan, Waterbury. R. H. Tucker, Saybrook. D. R. Hubbard, Guilford. J. P. Kingsley, Plainfield. Chas. Kingsbury, South Coventry. Hale, Day & Co., South Manchester. Geo. Beaumont, Wallingford. Daniel Morgan, Mystic. L. L. Dimmock, Waterford. Joseph Roode, Griswold. T. C. Smith, Torrington. H. L. Vibberts, Manchester. D. B. Wilson, Waterbury. H. K. Brainard, Thompsonville. A. H. Anderson, Putnam.	\$36.00 35.00 38.00 34.00 37.00 36.00 --- 33.00 37.00 38.00 35.00 35.00 38.00 33.00 37.00 36.00 35.00 35.00 36.00 36.00 40.00 38.00 36.00 38.00 36.00
3305	Soluble Pacific Potato Fertilizer.	W. D. Stewart & Co., 7 Exchange Place, Boston, Mass.		
3357	Potato Fertilizer, Conn. Brand.	Acme Fertilizer Co., Maspeth, L. I.		
3326	Potato Phosphate.	Williams & Clark Fertilizer Co., New York.		

SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3302	Ammoniated Wheat and Corn Phosphate.	Crocker Fertilizer Co., Buffalo, N. Y.	F. N. Barton, Watertown.	\$35.00
			M. H. Aborn & Co., Rockville.	34.00
			J. E. Leonard, Jewett City.	32.00
			Henry Davis, Durham.	32.00
			W. C. Russell, Orange.	33.00
			J. E. Holmes, Ridgefield.	35.00
			Erindle & Clark, West Cheshire.	----
			Waldo Tillinghast, Plainfield.	33.00
			G. W. Clark, Milford.	----
			F. H. & F. W. Tillinghast, Central Village.	34.00
			H. L. Vibberts, Manchester.	35.00
			W. L. L. Spencer, Lebanon.	36.00
			E. W. Peck, Stratford.	36.00
3307	Potato Manure.	Quinnipiac Co., 7 Exchange Place, Boston, Mass.	D. N. Mcduffy, Pomfret.	36.00
			F. S. Bidwell, Windsor Locks.	36.00
			M. A. Covell, North Grosvornordale.	34.00
			A. J. Martin, Wallingford.	35.00
			C. E. Young, Killingly.	35.00
			C. A. Young, Danielsonville.	38.00
			G. M. Williams, New London.	35.00
			Olde & Whipple, Hartford.	40.00
			J. S. Worthington, Gildersleeve.	----
			D. C. Wood, Stratford.	38.00

SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Manufacturer.	Dealer.	Dealers' cash price per ton.
3242	Potato Manure.	Bradley Fertilizer Co., 27 Kilby St., Boston, Mass.	Warner, Taylor & Curtiss, Sandy Hook.	\$36.00
			J. S. Wells, Hebron.	39.00
			G. W. Carver, Putnam.	34.00
			H. C. A born, Ellington.	36.00
			A. C. Sternberg, Hartford.	36.00
			F. S. Bidwell, Windsor Locks.	38.00
			D. W. Spencer, Centerbrook.	38.00
			D. N. Clark, Shelton.	40.00
			J. E. Leonard, Jewett City.	37.00
			Samuel Stevens, North Glastonbury.	-----
			City Coal & Wood Co., New Britain.	37.00
			Strong & Tanner, Winsted.	36.00
			W. F. Andross, Hartford.	36.00
			T. F. Powers, Waterford.	35.00
			Dix & Welles, Wethersfield.	35.00
3276	Samson Fertilizer for Vegetables and Potatoes.	Read Fertilizer Co., Box 3121, New York.	J. E. Holmes, Stratford.	38.00
			D. N. Clark & Sons, Milford.	34.00
			R. A. Parker, Warehouse Point.	35.00
3258	Complete Manure for Top Dressing Grass and Grain.	Bradley Fertilizer Co., Boston, Mass.	Howard Ives, Cheshire.	40.00
			G. W. Grant, South Windsor.	40.00
3277	Great Eastern Fertilizer for Oats, Buckwheat and Seeding Down.	Great Eastern Fertilizer Co., Rutland, Vt.	W. A. Snow, Columbia.	35.00
			Way & Sanderson, Pomfret.	34.00
			J. E. Comstock, New London.	32.00

ANALYSES OF SPECIAL MANURES SAMPLED BY THE STATION.

Station No.	Name or Brand.	Nitrogen.					Phosphoric Acid.				Potash.		Chlorine.	Cost per Ton.	Valuation.	Percentage Difference between Cost and Valuation.
		Nitrogen as Nitrates.	Nitrogen as Ammonia.	Nitrogen Organic.	Total Nitrogen Found.	Nitrogen Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Found.	Total Guaranteed.	Found.	Guaranteed.			
3260	Fairchild's Formula for Corn and General Crops	3.70	---	1.91	5.61	5.5	---	---	---	12.28	12.0	13.46	12.0	11.75	\$44.00	*1.8
3322	Mapes' Manure for Seeding Down	.83	---	2.76	3.59	2.5	---	9.16	7.56	16.72	18.0	11.43	10.0	10.35	37.50	1.4
3314	Stockbridge Manure for Tobacco	---	---	3.57	3.47	6.90	---	5.37	3.97	9.34	5.0	11.66	10.0	.39	50.00	7.8
3287	Mapes' Grass and Grain Spring Top Dressing	.99	---	1.52	2.60	5.11	4.1	6.45	.58	9.39	7.0	6.14	5.0	5.12	39.00	7.8
3289	Mapes' Manure for Fruit and Vines	.45	.89	1.63	2.97	1.7	5.65	2.41	1.15	9.21	7.0	11.45	10.0	.64	38.00	7.9
3259	Rogers & Hubbard's Soluble Potato Manure	1.57	---	3.90	5.47	5.0	1.14	5.68	3.32	10.14	10.0	5.17	5.0	.58	37.00	9.3
3292	Mapes' Complete Manure for Light Soils	1.44	1.65	2.15	5.24	4.9	6.27	2.57	.64	9.48	8.0	7.11	6.0	6.26	42.00	11.9
3173	Leander Wilcox's Potato Manure	.67	.25	2.63	3.55	3.2	6.19	1.16	.11	7.46	8.0	5.97	6.0	1.71	33.00	14.4
3171	C. C. C. Special Potato Manure	.58	---	2.27	2.85	2.7	6.08	1.22	.75	8.05	---	7.30	6.0	11.03	35.00	14.7
3240	Bradley's High Grade Tobacco Manure	---	3.53	2.53	6.06	5.8	2.03	2.35	1.38	5.76	4.0	11.02	10.8	1.30	46.00	15.0
3261	Lister's Potato Fertilizer	1.03	.74	2.25	4.02	3.7	6.61	1.34	.52	8.47	---	7.95	7.5	6.99	37.00	15.6
3332	Reese's Concentrated Potato and Corn Manure	trace	---	3.17	3.17	3.0	4.28	4.13	.29	8.70	7.0	6.14	7.5	6.48	33.00	15.7
3239	Baker's Special Tobacco Manure	---	3.90	.87	4.77	4.5	3.41	1.13	.82	5.36	---	9.87	10.0	.76	41.00	16.2

* Valuation exceeds cost.

† A mixture of bone flour and chemicals. Phosphoric acid valued as in bone of same fineness.

ANALYSES OF SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Nitrogen.					Phosphoric Acid.						Potash.		Chlorine.	Cost per Ton.	Valuation.	Percentage Differ- ence between Cost and Value.	
		Nitrogen as Nitrates.	Nitrogen as Ammonia.	Nitrogen, Organic.	Total Nitro- gen Found.	Nitrogen Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Found.	Total Guaranteed.	Available.		Found.					Guaranteed.
												Found.	Guar- anteed.						
33285	Mapes' Corn Manure	.84	.95	1.99	3.78	3.7	6.43	3.46	1.35	11.24	10.0	9.89	8.0	6.62	6.0	6.15	\$40.00	\$34.10	17.3
33286	Mapes' Corn Manure	.99	1.06	1.86	3.91	3.7	6.27	3.49	1.41	11.17	10.0	9.76	8.0	6.30	6.0	5.80	40.00	34.06	17.5
33290	Mapes' Tobacco Manure, Conn. Brand	.60	1.65	2.49	4.74	4.7	5.23	2.95	.67	8.85	---	8.18	7.8	8.08	7.7	1.00	44.00	37.28	18.0
33243	Bradley's Complete Manure for Potatoes and Vegeta- bles																		
33238	Baker's Potato Manure	.33	1.23	2.20	3.76	3.7	7.01	1.90	1.45	10.36	9.0	8.91	8.0	5.36	6.0	5.95	38.00	31.78	19.5
33286	Mapes' Tobacco Manure, Wrapper Brand	.41	2.63	.88	3.92	3.3	4.91	1.62	.89	7.42	---	6.53	5.0	10.73	10.0	4.40	42.50	34.93	21.7
33293	Mapes' Potato Manure	1.13	3.45	1.47	6.05	6.2	.72	3.96	1.75	6.43	4.5	4.68	4.5	10.36	10.5	1.31	48.00	39.44	21.7
33313	Darling's Potato and Root Crop Manure	.89	.87	2.24	4.00	3.3	5.52	2.79	1.28	9.59	8.0	8.31	8.0	7.45	6.0	.54	42.00	34.32	22.4
33327	Williams & Clark's High Grade Special for Potatoes, Tobacco, Onions and Cab- bage	.41	.34	3.16	3.81	2.9	2.85	4.80	2.78	10.43	---	7.65	10.0	6.46	7.0	5.25	38.00	30.93	22.9
33279	Great Eastern Vegetable, Vine and Tobacco Fertilizer	.46	.85	2.30	3.61	3.7	5.60	3.35	1.92	10.87	8.0	8.95	7.0	6.63	7.0	6.79	40.00	32.34	23.7
33315	Bowker's Stockbridge Man- ure for Corn	.17	---	2.08	2.25	2.1	6.40	1.97	1.16	9.53	9.0	8.37	8.0	6.29	6.0	6.00	34.00	26.26	29.4
33300	Crocker's Special Potato Manure	1.37	---	1.95	3.32	3.3	7.52	2.49	1.50	11.51	9.0	10.01	8.0	4.31	7.0	4.03	40.00	30.27	32.1
33278	Great Eastern Grain and Grass Fertilizer	---	.19	3.27	3.46	3.7	6.59	1.16	1.14	8.89	9.0	7.75	8.0	6.47	5.5	6.16	39.00	29.40	32.7
		.23	---	2.78	3.01	2.9	6.88	1.78	.74	9.40	9.0	8.66	8.0	2.22	2.0	3.32	34.00	25.57	32.9

ANALYSES OF SPECIAL MANURES SAMPLED BY THE STATION—Continued.

Station No.	Name or Brand.	Nitrogen.				Phosphoric Acid.						Potash.		Chlorine.	Cost per Ton.	Valuation.	Percentage Difference between Cost and Valuation.		
		Nitrogen as Nitrates.	Nitrogen as Ammonia.	Nitrogen Organic.	Total Nitrogen Found.	Nitrogen Guaranteed.	Soluble.	Reverted.	Insoluble.	Total Found.	Total Guaranteed.	Found.	Guaranteed.						
3244	Bradley's Complete Manure for Corn and Grain.....	.23	.49	2.35	3.07	2.9	7.65	2.71	1.03	11.39	9.0	10.36	8.0	3.71	3.0	3.93	\$40.00	\$29.83	34.1
3316	Stockbridge Manure for Potatoes and Vegetables....	1.97	---	1.80	3.77	3.3	4.61	2.17	2.75	9.53	8.0	6.78	7.0	6.99	5.0	5.19	40.00	29.34	36.3
3298	Crocker's Potatoes, Tobacco and Hop Phosphate.....	---	---	2.25	2.25	2.0	6.80	2.93	1.87	11.60	11.0	9.73	10.0	3.41	3.5	3.80	36.00	26.08	38.0
3305	Stewart's Soluble Pacific Potato Fertilizer.....	---	---	2.82	2.82	2.5	4.75	2.35	1.92	9.02	7.0	7.10	5.0	5.23	5.0	4.92	35.00	25.35	38.0
3357	Acme Fertilizer Co's Conn. Brand for Potatoes.....	---	1.52	1.41	2.93	3.3	4.19	1.83	2.59	8.61	7.0	6.02	---	7.80	7.0	7.15	38.00	27.50	38.1
3326	Williams & Clark Fertilizer	trace	---	2.87	2.87	2.5	5.23	2.48	1.12	8.83	7.0	7.71	6.0	5.02	5.0	3.81	36.00	25.96	38.7
3302	Co's Potato Phosphate.....	---	---	---	---	---	7.15	2.81	1.92	11.88	11.0	9.96	10.0	1.54	1.7	2.45	34.00	24.48	38.9
3307	Crocker Ammoniated Wheat and Corn Phosphate.....	.05	---	2.10	2.15	2.0	4.85	2.51	1.28	8.64	7.0	7.36	6.0	5.27	5.0	4.33	36.00	25.58	40.7
3242	Quinnipiac Potato Manure...	---	---	2.84	2.84	2.5	4.74	2.50	1.72	8.96	8.0	7.24	6.0	4.94	5.0	4.82	36.00	25.17	43.0
3276	Bradley's Potato Manure... Read's Samson Fertilizer for Vegetables and Potatoes.	.20	---	2.62	2.82	2.5	7.09	1.70	.67	9.46	9.0	8.79	8.0	6.84	5.0	6.28	40.00	27.30	46.5
3258	Bradley's Complete Manure for Top Dressing Grass and Grain.....	---	---	---	---	---	2.69	2.36	1.42	6.47	6.0	5.05	5.0	3.03	2.5	.40	40.00	26.37	51.6
3277	Great Eastern Fertilizer for Oats, Buckwheat and Seeding Down.....	5.08	---	---	5.08	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---
		trace	---	1.15	1.15	.8	7.20	1.44	.65	9.29	9.0	8.64	8.0	4.34	4.0	5.78	33.00	21.42	54.1

FORMULAS OF THE HOME MIXTURES.

3125. Mixture made by S. E. Curtiss, Stratford.

FORMULA.

3,200 pounds	Dissolved Bone Black,	costing	-----	\$41.60
600	"	Double Sulphate of Potash,	" -----	9.00
600	"	Muriate of Potash,	" -----	12.75
800	"	Nitrate of Soda,	" -----	20.00
2,800	"	Tankage,	" -----	49.00
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8,000				\$132.35

3153. Mixture for general use made by N. D. Platt, Milford.

FORMULA.

1,335 pounds	Tankage,	costing	-----	\$24.03
1,333	"	Dissolved Bone Black,	" -----	17.32
333	"	Bone,	" -----	5.32
333	"	Sulphate of Ammonia,	" -----	11.98
333	"	Double Sulphate of Potash,	" -----	5.00
333	"	Muriate of Potash,	" -----	7.09
<hr/>				
4,000				\$70.74

Cost of materials \$36.37 per ton delivered at Milford.

3154. Mixture for Potatoes made by Geo. F. Platt, Milford.

FORMULA.

800 pounds	Tankage,	costing	-----	\$14.40
400	"	Bone,	" -----	6.40
550	"	Dissolved Bone Black,	" -----	7.15
50	"	Sulphate of Ammonia,	" -----	1.80
100	"	Nitrate of Soda,	" -----	2.50
50	"	Double Sulphate of Potash,	" -----	.75
50	"	Muriate of Potash,	" -----	1.07
<hr/>				
2,000				\$34.07

Cost of materials \$35.07 delivered at Milford.

3155. Mixture for Potatoes made by R. M. Treat, Woodmont.

FORMULA.

450 pounds	Tankage,	costing	-----	\$ 8.10
170	"	Sulphate of Ammonia,	" -----	6.12
1,000	"	Dissolved Bone Black,	" -----	13.00
280	"	Muriate of Potash,	" -----	5.96
100	"	Double Sulphate of Potash,	" -----	1.50
<hr/>				
2,000				\$34.68

Cost of materials \$35.68 delivered at Woodmont.

3156. Mixture for Potatoes, made by Dennis Fenn, Milford.

FORMULA.

350 pounds	Muriate of Potash,	costing-----	\$ 7.45
900	" Dissolved Bone Black,	" -----	11.70
1,400	" Tankage,	" -----	25.20
350	" Nitrate of Soda,	" -----	8.80
<hr/>			
3,000			\$53.15

Materials cost \$36.43 delivered at Milford.

3160. Mixture for general use made by W. L. and S. T. Merwin, Milford.

FORMULA.

700 pounds	Muriate of Potash,	costing-----	\$14.91
3,400	" Dissolved Bone Black,	" -----	44.20
500	" Tankage,	" -----	9.00
700	" Sulphate of Ammonia,	" -----	2.52
500	" Bone,	" -----	8.00
2,200	" Fish containing some potash,	" -----	24.20
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8,000			\$102.83

Materials cost \$26.43 delivered at Milford.

3188. Mixture for Oats, made by T. J. Stroud, Shaker Station.

FORMULA.

800 pounds	Tankage.
700	" Castor Pomace.
400	" Nitrate of Soda.
200	" Muriate of Potash.
100	" Dissolved Bone Black.
100	" Plaster.
<hr/>	
2,300	

3189. Mixture for Potatoes, made by T. J. Stroud, Shaker Station.

FORMULA.

700 pounds	Tankage.
500	" Castor Pomace.
50	" Nitrate of Soda.
400	" Muriate of Potash.
250	" Double Sulphate of Potash.
100	" Dissolved Bone Black.
100	" Plaster.
<hr/>	
2,100	

3191. Made by Dennis Fenn, Milford. It contains tankage, dissolved bone black, nitrate of soda and ashes. Exact proportions not known.

3205. Mixture made by H. S. Frye, Poquonock.

FORMULA.

4,000 pounds Cotton Seed Meal,	costing-----	\$49.00
1,200 " Dissolved Bone Black,	" -----	15.60
900 " Double Sulphate of Potash,	" -----	13.50
300 " Sulphate of Ammonia,	" -----	10.80
1,600 " Tankage,	" -----	28.80
<hr/> 8,000		<hr/> \$117.70

Materials cost \$29.42 per ton delivered at Windsor.

3207. Mixture for Tobacco, made by A. E. Holcomb, Poquonock.

FORMULA.

150 pounds Sulphate of Ammonia,	costing-----	\$ 5.40
800 " Tankage,	" -----	14.40
600 " Dissolved Bone Black,	" -----	7.80
450 " Double Sulphate of Potash,	" -----	6.75
<hr/> 2,000		<hr/> \$34.35

Materials cost \$36.15 per ton delivered at Poquonock.

3226. Mixture for Corn, made by Dennis Fenn, Milford.

FORMULA.

500 pounds Bone,	costing-----	\$ 8.00
200 " Muriate of Potash,	" -----	4.26
600 " Dissolved Bone Black,	" -----	7.80
500 " Tankage,	" -----	9.00
200 " Nitrate of Soda,	" -----	5.00
<hr/> 2,000		<hr/> \$34.06

Materials cost \$35.06 per ton delivered at Milford.

3267 and **3268.** Mixtures made by J. M. Brown, Poquonock, formulas not given.

3273. Mixture for Corn, made by T. J. Stroud, Shaker Station.

FORMULA.

800	pounds	Castor Pomace.
900	"	Tankage.
200	"	Muriate of Potash.
100	"	Dissolved Bone Black.
100	"	Nitrate of Soda.
100	"	Plaster.
<hr/>		
2,200		

3281. Mixture made by E. J. Wells, East Windsor Hill.

FORMULA.

150	pounds	Sulphate of Ammonia,	costing	-----	\$ 5.62
700	"	Dissolved Bone Black,	"	-----	10.50
700	"	Tankage,	"	-----	11.20
245	"	High Grade Sulphate of Potash,	"	-----	6.86
<hr/>					
1,795					\$34.18

Materials cost *about* \$39.60 delivered at East Windsor Hill.

3282. Mixture made by E. J. Wells, East Windsor Hill.

FORMULA.

262	pounds	Muriate of Potash,	costing	-----	\$ 7.21
800	"	Dissolved Bone Black,	"	-----	12.00
700	"	Tankage,	"	-----	11.20
266	"	Nitrate of Soda,	"	-----	7.32
<hr/>					
2,028					\$37.73

Materials cost *about* \$38.73 per ton delivered at East Windsor Hill.

3283 and **3284.** Mixtures for general use made by H. G. Osborne, East Windsor Hill.

HOME MIXED FERTILIZERS.—ANALYSES AND VALUATIONS.

Station No.	Name.	Nitrogen.				Phosphoric Acid.				Potash.		Chlorine.	Valuation per Ton.	Cost of Raw Material per Ton.
		As Nitrates.	As Ammonia.	Organic.	Total Found.	Total Calculated.	Soluble.	Reverted.	Insoluble.	Total Found.	Total Calculated.			
3125	S. E. Curtiss, Home Mixture	1.75	---	1.85	3.60	3.9	6.40	2.32	1.32	10.04	10.9	3.79	\$30.48	\$34.09
3153	N. D. Platt, Mixture for General Use	---	1.64	2.32	3.96	3.9	7.02	3.16	2.34	12.52	13.9	6.3	36.06	36.37
3154	G. F. Platt, Mixture for Potatoes	.74	.60	3.22	4.56	4.3	5.39	4.61	5.11	15.11	17.3	7.9	34.11	35.07
3155	R. M. Treat, Mixture for Potatoes	---	1.60	1.63	3.23	3.0	10.25	1.53	.56	12.34	12.5	8.4	35.77	35.68
3156	Dennis Fenn, Mixture for Potatoes	1.71	---	3.06	4.77	4.5	5.79	3.29	2.68	11.76	13.9	5.9	34.91	36.43
3160	W. L. & S. T. Merwin, Home Mixture	---	1.97	1.61	3.58	3.6	7.95	1.77	.55	10.27	10.7	5.1	32.76	26.43
3188	T. J. Stroud, Mixture for Oats	2.95	---	3.56	6.51	6.2	.86	3.84	2.04	6.74	7.9	4.7	33.02	---
3189	T. J. Stroud, Mixture for Potatoes	.32	---	3.00	3.32	3.4	.83	3.49	1.77	6.09	7.6	15.85	32.38	---
3191	Dennis Fenn, Mixture for Potatoes	.94	---	2.36	3.30	---	1.31	3.51	5.07	9.89	---	.54	26.30	---
3205	H. S. Frye, Home Mixture	---	.74	4.85	5.59	5.4	2.40	3.01	2.13	7.54	7.8	4.0	33.84	29.42
3207	A. E. Holcomb, Home Mixture	---	1.06	2.20	3.26	3.6	5.81	4.17	2.75	12.73	13.2	5.90	33.89	36.15
3226	Dennis Fenn, Home Mixture	1.45	---	2.78	4.23	3.9	5.60	4.72	4.14	14.46	15.8	5.2	35.32	35.05
3267	J. M. Brown, Home Mixture	---	2.69	2.32	5.01	---	5.66	6.34	2.47	14.47	---	3.10	40.03	35.00
3268	J. M. Brown, Home Mixture	---	.34	1.92	2.26	---	4.34	5.53	2.22	12.09	---	.68	42.10	35.00
3273	T. J. Stroud, Mixture for Corn	.97	---	4.35	5.32	4.9	.16	5.32	1.88	7.36	9.2	5.54	30.28	---
3281	E. J. Wells, Home Mixture	---	1.55	2.41	3.96	3.9	4.16	6.33	4.03	14.52	13.5	5.4	38.27	39.60
3282	E. J. Wells, Home Mixture	1.63	---	2.14	3.77	4.7	3.57	6.12	4.21	13.90	12.7	6.7	34.84	38.73
3283	H. G. Osborne, Home Mixture	---	1.20	1.71	2.91	---	5.02	3.83	1.92	10.77	---	.93	36.15	---
3284	H. G. Osborne, Home Mixture	.99	---	2.28	3.27	---	6.83	3.38	.69	10.90	---	5.19	34.41	---

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